<u>REMARKS</u>

Claims 1-6, 8-14, 16-18 and 23 are currently pending in the subject application and are presently under consideration. Claims 1, 14 and 18 have been amended as shown on pp. 2-6 of the Reply. New claims 24-26 have been added.

Applicants' representative thanks the Examiner for the courtesies extended during the teleconference of March 31, 2009, wherein the claims were discussed in light of the 35 U.S.C. §103(a) rejections. No agreement was reached with respect to the claims as further consideration is necessary by the Examiner.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I.   <u>Rejection of Claim 1</u>

Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of US Patent No. 7,209,916. A terminal disclaimer in compliance with 37 C.F.R. §1.321(c) is submitted with this Reply, as such this rejection is moot and should be withdrawn.

II.   <u>Rejection of Claims 1-5, 11-13 Under 35 U.S.C. §103(a)</u>

Claims 1-5, 11-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamanoue (US Patent No. 6,745,180 B2), in view of Abbott *et al.* (US Patent No. 6,920,616). Applicants' representative respectfully requests that this rejection be withdrawn for at least the following reasons. Yamanoue and Abbott *et al.*, individually or in combination, fail to disclose all limitations of the claimed subject matter.

The claimed subject matter relates to an information agent system, application, and methodology. An information agent system provides the platform for executing information agent applications (IA). IA applications can then be programmed by end-users and employed as end-user executive assistants or agents. Agents can then act to greatly enhance end-user personal productivity, integrate desktop applications and all personal communication mediums (*e.g.*, mobile phone, pager, PDA…).

Specifically, claim 1 recites a preference execution system, comprising: *…a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence*

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*notification decision-making, **the parameters comprise a user's typical locations and attentional focus, devices users tend to have access to in different locations, a user's preference as to being disturbed by notifications of different types in different settings, default parameters as to how the user wishes to be notified in different situations, or cost of disruption associated with being notified by different modes in different settings**, the parameters are stored as a user profile that can be edited by the user or users can specify in real-time their state; and **a constant accessor that provides navigation to data across different domains to enable a user to write cross-domain preferences**.* The cited references fail to disclose such claimed aspects.

Yamanoue describes a data supply controlling device that comprises a data base for user data which stores user data matched with each user. The data base of user data can be queried in accordance with the user data so that a data server performs a search according to the query and stores the search results in a search result data base. User ID management can be performed for separately managing the identifying data to identify each user and user specifying data to specify each user. A search result matched with the identifying data of the user from the search results stored in the search result data base is provide for a user terminal. Once the user data is stored, it is not required to carry out further communications to input the user data. (*See* col. 2, lines 26-53).

In contrast, applicants' claimed subject matter discloses a system for preference evaluation. The system comprises a data store, a multitude of tables, a preference execution engine, a results table, a context analyzer and a constant accessor. The context analyzer stores/analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the devices users tend to have access to in different locations. The profile parameters may be stored as a user profile that can be edited by the user. Beyond relying on sets of predefined profiles or dynamic inference, the notification architecture can enable users to specify in real-time his or her state.

Further, the constant accessors are named groups of objects that provide arguments to conditions and actions in place of a user having to manually specify each such object. Constant accessors are constants that allow preferences and conditions to be written that are capable of navigating and retrieving information from various domains. These constants are simply names veneered over functions that operate to find and materialize the correct information, namely the

members of the group associated with the name of the constant. Accordingly, the constant accessors provide navigation to data across different domains, and the combination of schematized logic with navigational accessors enables non-programmers to write cross-domain preferences. (*See* pg. 74, line 14-pg. 75, line 27 and pg. 29, line 18-pg. 31, line 16).

Yamanoue discloses generating a query based on user data stored in a user data storage section and supplying data based on the query. Thus, a search result that is suitable to each user can be presented to the user. Further, Yamanoue discloses a system which searches for information using a data supplying device and provides search results to the user in such a manner to provide information suitable for user's preference and interest by referring to user data. (*See* col. 1, lines 8-15, Yamanoue). Yamanoue does not disclose a constant accessor that provides navigation to data across different domains to enable a user to write cross-domain preferences, as in applicants' claimed subject matter. Further, constant accessors are constants that allow preferences and conditions to be written that are capable of navigating and retrieving information from various domains. These constants are simply names veneered over functions that operate to find and materialize the correct information, namely the members of the group associated with the name of the constant. To the contrary, Yamanoue discloses a system which searches for information using a data supplying device and provides search results suitable for a user's preferences. Nowhere does Yamanoue disclose utilizing a constant accessor to navigate and retrieve data across different domains. Applicants respectfully submit that a constant accessor that provides navigation to data across different domains to enable a user to write cross-domain preferences as recited in claim 1 is not disclosed or suggested by the cited art.

Furthermore, Abbott *et al.* does not cure the deficiencies of Yamanoue. Abbott *et al.* discloses a software facility for exchanging information between sources of context data and consumers of context data. A characterization module operating in a wearable computer system receives context information, in the form of individual attributes each modeling an aspect of the wearable computer system, its use, or the surrounding environment, from one or more context servers, and provides it to one or more context clients. (*See* col. 3, lines 19-36).

As stated *supra*, applicants' claimed subject matter discloses a system for preference evaluation. The system comprises a context analyzer that stores/analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional

focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the default notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. The parameters may also include default parameters as to how the user wishes to be notified in different situations (*e.g.,* such as by cell phone, by pager). The parameters can include such assessments as the costs of disruption associated with being notified by different modes in different settings. (*See* pg. 74, line 14-pg. 75, line 27).

Abbott *et al.* discloses a context server to monitor the user and the environment and to model their current condition. A model of the current conditions includes a variety of condition variables that represent information about the user, such as geographic information, user's physical activity, emotional state, background information, *etc.* (*See* col. 6, lines 29-53, Abbott *et al.*). In contrast, applicants' claimed subject matter discloses a context analyzer that analyzes parameters that comprise a user's typical locations and attentional focus, devices users tend to have access to in different locations, a user's preference as to being disturbed by notifications of different types in different settings, default parameters as to how the user wishes to be notified in different situations, or cost of disruption associated with being notified by different modes in different settings. Abbott *et al.* does not disclose analyzing parameters such as how the user wishes to be notified in different situations and cost of disruption associated with being notified by different modes in different settings.

The model of Abbott *et al.* discloses condition variables that represent information about the user at varying levels of abstraction. This includes raw physiological data, geographic information, emotional state, cognitive load, background information, *etc.* The Examiner's Reply asserts that Abbott *et al.* discloses applicants' defined parameters and cites a generalized statement that a model of the current conditions can include a variety of condition variables that represent information about the user, the computer, and the user's environment at varying levels of abstraction. The model of the current conditions can additionally include information added explicitly from other sources… (*See* Reply to Office Action dated 2-19-09, pp. 11-12). However, nowhere does Abbott *et al.* specifically disclose analyzing parameters such as how the user wishes to be notified in different situations and determining a cost of disruption associated with being notified by different modes in different setting. Applicants respectfully submit that a context analyzer that analyzes parameters of a user, wherein the parameters comprise a user's typical locations and attentional

focus, devices users tend to have access to in different locations, a user's preference as to being disturbed by notifications of different types in different settings, default parameters as to how the user wishes to be notified in different situations, or cost of disruption associated with being notified by different modes in different settings as recited in claim 1 is not disclosed or suggested by the cited art.

In view of the aforementioned deficiencies of the cited references, it is respectfully submitted that this rejection be withdrawn with respect to claims 1-5 and 11-13.

III.   Rejection of Claims 6, 8, 9, 10 Under 35 U.S.C. §103(a)

Claims 6, 8, 9, 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamanoue (US Patent No. 6,745,180 B2), in view of Abbott *et al.* (US Patent No. 6,920,616); further in view of Omoigui (US 2003/012136 A1). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Yamanoue, Abbott *et al.* and Omoigui, individually or in combination, do not teach or suggest each and every element set forth in the subject claims. In particular, Omoigui does not make up for the aforementioned deficiencies of Yamanoue and Abbott *et al.* with respect to independent claim 1 (which claims 6, 8, 9 and 10 depend there from). Thus, the claimed subject matter as recited in claims 6, 8, 9 and 10 is not obvious over the combination of Yamanoue, Abbott *et al.* and Omoigui, and withdrawal of this rejection is requested.

IV.   Rejection of Claims 14, 16-17 Under 35 U.S.C. §103(a)

Claims 14, 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over prior art of record, Knutson *et al.* (U.S. Patent No. 5,870,746); in view of Abbott *et al.* (US Patent No. 6,920,616). Applicants' representative respectfully requests that this rejection be withdrawn for at least the following reasons. Knutson *et al.* and Abbott *et al.*, individually or in combination, fail to disclose all limitations of the claimed subject matter.

As stated *supra*, the claimed subject matter relates to an information agent system, application, and methodology. An information agent system provides the platform for executing IA applications that can then be programmed by end-users and employed as end-user executive assistants or agents. Specifically, claim 14 recites a method for application installation comprising: *establishing a set of base tables in a data store; storing program actions, conditions, events or procedures as data in the data store; updating the base tables with application data associated*

*with an application being installed by retrieving program text from the data store and executing the program text, **employing user defined preferences retrieved from a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making; and personalizing folders to define preferences and to define conditions and actions that control the content of folders upon the happening of an event.*** The cited references fail to disclose such claimed aspects.

Knutson *et al.* discloses a system and method for generating reports from a computer database. The system allows a user to segment and partition a database based upon attributes associated with the data in the database. (*See* col. 2, lines 20-25).

In contrast, applicants' claimed subject matter discloses a method for application installation wherein the application employs user defined preferences *via* a context analyzer. The context analyzer stores and analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the devices users tend to have access to in different locations. Such parameters may also be functions of observations made autonomously *via* one or more sensors. (*See* pg. 74, line 14-pg. 75, line 27).

Knutson *et al.* discloses a log-in module that verifies that only one copy of the client subsystem is running on the computer, checks the localization of the computer, connects to the computer and interacts with the user to log him onto the client subsystem. During logon, the log-in module verifies a user's name and password and then retrieves any user preferences that may have been earlier defined. (*See* col. 8, lines 11-13). This provides for logging on to the client subsystem and does not define conditions or actions that control content of personalized folders. Applicants' claimed subject matter recites the step of personalizing folders to define preferences and to define conditions and actions that control the content of folders upon the happening of an event. This is not disclosed or suggested by the cited art.

Abbott *et al.* does not cure the deficiencies of Knutson *et al.* Abbott *et al.* discloses a context server to monitor the user and the environment and to model their current condition. A model of the current conditions includes a variety of condition variables that represent information about the user, such as geographic information, user's physical activity, emotional state, background information, *etc.* (*See* col. 6, lines 29-53, Abbott *et al.*). Applicants' claimed subject

matter discloses employing user defined preferences retrieved from a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making and personalizing folders to define preferences and to define conditions and actions that control the content of folders upon the happening of an event. For example, personalized folders are defined and controlled by end-user specified logic or preferences. End-users define conditions and actions that control the content of folders upon the happening of an event or events correspond to changes in folder data (*e.g.*, document added, deleted, or modified).

The model of Abbott *et al.* discloses condition variables that represent information about the user at varying levels of abstraction. This includes raw physiological data, geographic information, emotional state, cognitive load, background information, *etc.* However, Abbott *et al.* does not disclose defining and controlling personalized folders to define preferences. Abbott *et al.* merely discloses a context server that monitors a user to model their current condition. Applicants respectfully submit that employing user defined preferences retrieved from a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making; and personalizing folders to define preferences and to define conditions and actions that control the content of folders upon the happening of an event as recited in claim 14 is not disclosed or suggested by the cited art.

In view of the aforementioned deficiencies of the cited references, it is respectfully submitted that this rejection be withdrawn with respect to claims 14 and 16-17.

V.   Rejection of Claims 18 and 23 Under 35 U.S.C. §103(a)

Claims 18 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamanoue and Abbott *et al.* as applied to claim 1 above, and further in view of Bailey ("An Event-Condition-Action Language for XML"). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Yamanoue, Abbott *et al.* and Bailey, individually or in combination, do not teach or suggest each and every element set forth in the subject claims.

Specifically, claim 18 recites a method for employing preferences comprising:....; *utilizing a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, the parameters comprise a user's typical locations and attentional focus, activities per time of day and day of week, devices users tend to have access to in different locations, a user's preference as to being disturbed by notifications of*

different types in different settings, or cost of disruption associated with being notified by
different modes in different settings; and storing the parameters as a user profile that can be
edited by the user or allowing users to specify in real-time their state; utilizing a one-at-a-time
declarative programming model, wherein user preferences are specified using one or more On-
event-If-Then statements and Boolean operators to specify conditions and actions; and providing
a constant accessor that allows preferences and conditions to be written that are capable of
navigating and retrieving information from various domains.

As stated *supra*, Yamanoue discloses generating a query based on user data stored in a user
data storage section and supplying data based on the query. Thus, a search result that is suitable to
each user can be presented to the user. Further, Yamanoue discloses a system which searches for
information using a data supplying device and provides search results to the user in such a manner
to provide information suitable for user's preference and interest by referring to user data. (*See* col.
1, lines 8-15, Yamanoue). Yamanoue does not disclose a constant accessor that allows preferences
and conditions to be written that are capable of navigating and retrieving information from various
domains, as in applicants' claimed subject matter. Further, constant accessors are constants that are
names veneered over functions that operate to find and materialize the correct information, namely
the members of the group associated with the name of the constant. To the contrary, Yamanoue
discloses a system which searches for information using a data supplying device and provides
search results suitable for a user's preferences. Nowhere does Yamanoue disclose utilizing a
constant accessor to navigate and retrieve data across different domains. Applicants respectfully
submit that a constant accessor that allows preferences and conditions to be written that are capable
of navigating and retrieving information from various domains as recited in claim 18 is not
disclosed or suggested by the cited art.

Furthermore, Abbott *et al.* does not cure the deficiencies of Yamanoue. Abbott *et al.*
discloses a context server to monitor the user and the environment and to model their current
condition. A model of the current conditions includes a variety of condition variables that represent
information about the user, such as geographic information, user's physical activity, emotional
state, background information, *etc.* (*See* col. 6, lines 29-53, Abbott *et al.*). In contrast, applicants'
claimed subject matter discloses a context analyzer that analyzes parameters that comprise a user's
typical locations and attentional focus, devices users tend to have access to in different locations, a
user's preference as to being disturbed by notifications of different types in different settings, or

cost of disruption associated with being notified by different modes in different settings. Abbott *et al.* does not disclose analyzing parameters such as how the user wishes to be notified in different situations and cost of disruption associated with being notified by different modes in different settings.

The model of Abbott *et al.* discloses condition variables that represent information about the user at varying levels of abstraction. This includes raw physiological data, geographic information, emotional state, cognitive load, background information, *etc.* The Examiner's Reply asserts that Abbott *et al.* discloses applicants' defined parameters and cites a generalized statement that a model of the current conditions can include a variety of condition variables that represent information about the user, the computer, and the user's environment at varying levels of abstraction. The model of the current conditions can additionally include information added explicitly from other sources… (*See* Reply to Office Action dated 2-19-09, pp. 11-12). However, nowhere does Abbott *et al.* specifically disclose analyzing parameters such as how the user wishes to be notified in different situations and determining a cost of disruption associated with being notified by different modes in different setting. Applicants respectfully submit that a context analyzer that analyzes parameters of a user, wherein the parameters comprise a user's typical locations and attentional focus, devices users tend to have access to in different locations, a user's preference as to being disturbed by notifications of different types in different settings, or cost of disruption associated with being notified by different modes in different settings as recited in claim 18 is not disclosed or suggested by the cited art.

Bailey does not make up for the aforementioned deficiencies of Yamanoue and Abbott *et al.* with respect to independent claim 18 (which claim 23 depends from). Bailey was cited by the Examiner for disclosing the use of on event if condition then action statements and the use of Boolean operators. (*See* Office Action dated 2-19-09, pg. 26). Bailey does not disclose utilizing a one-at-a-time declarative programming model, wherein user preferences are specified using one or more On-event-If-Then statements and Boolean operators to specify conditions and actions, as in applicants' claimed subject matter. For example, the system retrieves one-at-a-time program declarations to allow preferences to be evaluated in a very efficient manner while developers and end-users are left to conceptualize and write programs in a one-at-a-time manner. Rather, Bailey discloses The ECA Rule Language where XPath and XQuery languages are used to specify events, conditions and actions within the ECA rules. Applicants respectfully submit that utilizing a one-at-

a-time declarative programming model, wherein user preferences are specified using one or more On-event-If-Then statements and Boolean operators to specify conditions and actions as recited in claim 18 is not disclosed or suggested by the cited art.

Thus, the claimed subject matter as recited in claims 18 and 23 is not obvious over the combination of Yamanoue, Abbott *et al.* and Bailey, and withdrawal of this rejection is requested.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP545US]

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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